Pulling It Together: a pre-comprehensive first-year project

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Abstract

> *"To be playful and serious at the same time is possible, and it defines the ideal mental condition. Absence of dogmatism and prejudice, presence of intellectual curiosity and flexibility, are manifest in the free play of the mind upon a topic. To give the mind this free play is not to encourage toying with a subject, it is to be interested in the unfolding of the subject on its own account, apart from subservience to a preconceived belief or habitual aim."*
>
> John Dewey

In the fall of 2006, a design studio (des131) and a drawing studio (des111) were compressed into a unified package (des131111.) There was a desire for direct access to all the course content necessary to conduct a successful foundations design studio experience. This opportunity presented itself after several semesters diplomatically disputing our desires to construct a studio experience that directly integrated both the design curriculum and the drawing curriculum. This unique semester was not a top down instigation, but rather an inside out insertion. Through the eyes of the administration, the conventional segregation found in the catalogue appeared to be sufficiently successful. The deception however was that the administration, being physically removed from the front line, was only familiar with product and therefore essentially uninformed concerning the means by which it was produced. The foundation design studio faculty assumed a position that the first two semesters of the curriculum should establish a precedent with a rich emphasis on process. There was plenty of evidence and experience that proved if our students were to be sincerely involved in process, the product would inevitably materialize. Assuming this position was a crucial factor in how the compressed semester was organized because it was the initial attempt to negotiate a precedent of process over product.

Collaboration

Normally a team teaching endeavor is a way for an experienced professor to mentor a not yet experienced colleague. Eirik and Brian had both gathered team teaching experience early in their teaching careers when their paths crossed in southern Louisiana. This particular team teaching adventure was therefore cross-pollinated. The collaboration was democratic in an ideal sense. The governance was shared creatively and the flow of activity was maintained by closely scrutinizing the student's work and the studio pedagogy. To sustain authority, contradictions in the face of the crowd were avoided until it could be worked out backstage. A year after having done the collaboration it is questionable whether this was necessary. Discussion points were usually reiterated in numerous tones, which demonstrated that the frame of reference was always similar, but not exactly congruent.

The collaboration started as a belief that pedagogy is not a curricular strategy or a well-balanced degree plan even though it is often managed as such. Pedagogy is also not a successful collection of projects with proven successful outcomes. Pedagogy as Dewey suggests is about how the semester unfolds. How much of the interaction is playful and how much is serious? It is about the designated professional (professor) mapping the agenda, promoting curiosity, avoiding dogma, and making the experience meaningful – for the students. It is about the delivery of information, the enthusiasm, the classroom ambiance, the choreography of time and the logistics of space.

The compressed collaboration came with many surprises and unpredictable benefits. Since the scale of the class was double that of a normal class, the group had a physical presence that was undeniably visible. At times the scale of the production was veritably theatrical. The class was aware they were being watched by the rest of the school and consistently did their best to provide their audience with entertainment. The forty-student group had a confident stage presence. They worked well with each other and rarely disappointed anyone. They regularly met or exceeded all expectations and the semester is now considered an undeniable success. The success of the studio was not necessarily because of the assignments we shared with the students. The outcomes would probably have flourished no matter which assignments we had offered. The semester was a pleasure for all involved and in retrospect that can be attributed to the success of the pedagogical relations between the teachers and the students. It was the daily logistics concerning the way the professors introduced information that cultivated a rich learning environment. Every assignment was preceded by discussions and demonstrations emphasizing the relevance of any particular task. The assignments were not mysterious errands the students did for the sake of grades or completion. They were informed experiments in pursuit of specific outcomes known to be incomplete thoughts, but understood as valuable experiences contributing to their collective design awareness. Engagement was sincere as the activities were loaded with meaning fueled by discussion and criticism.

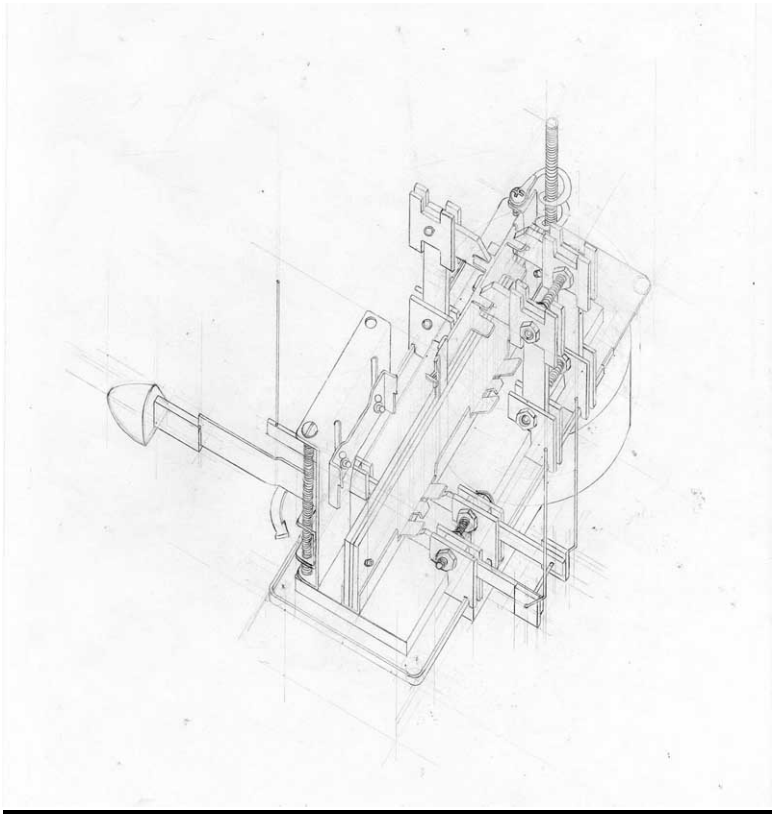
Studio Structure

The daily reviews of student work were conducted in an almost anonymous way. Individual desk conversations were a rare occurrence. Criticism was broadly dispersed in general terms. Student work was displayed on studio desks at the beginning of class and the professors would choose a representation of the days produce to use as a generator for discussion. We intentionally relied on the topic of discussion to represent the bigger collection of work leaving the rest of the students with the responsibility of synthesizing the criticism and applying it to their own individual work. The generated discussions about the work occurred in a classroom environment rather than the studio to emphasize a time to reflect upon what was done. The criticism was an intellectual facet of the design process, intentionally separated from the productive physical activity. The rhythm of the daily criticism cycle worked well because it was analogous to the design process that was so often discussed. The process was a repetitive combination of doing - physically or actively, and thinking - carefully or thoughtfully to stress that design utilizes both the body and the intellect. With time, the criticism cycle became ritual and the evaluation and progress of work flowed at an acceptable pace.

An unfortunate common characteristic of beginning design students is their desire to solve complex problems in a very direct way. From the moment a project is given, students have a tendency to move directly to a finished solution. We prefer the design process be understood as a means to an end. It is not unlike going through four years of college to "get a degree." It is ultimately not the degree that is important. It is the education that happens in-between the first day of class and graduation. The degree or "product" is a testament to the education or "process" of the student.

There was an effort to overcome a specific deficit in basic drawing, making and critical thinking skills that typify many students education in the Middle East prior to entering design school. We developed a four-week project for first-year design students that addressed the ideal mental condition described by John Dewey in *How We Think*. The project was designed for students coming from an educational system where knowledge is often compartmentalized and memorization and recall become the primary aim. The necessity to introduce a less direct process is fundamental to the design student and must happen early in their design education. The indirect design process allows for this serious play to happen. Play, in design process, tests a student's ability to constantly re-contextualize the elements that are given. When the outcome of a design project is not readily predictable, students learn to rely on questioning, analysis and exploration through an iterative process to inform the outcome. This type of engagement allows students to look for less obvious relationships, react to unexpected circumstances and to post-rationalize.

Build-up



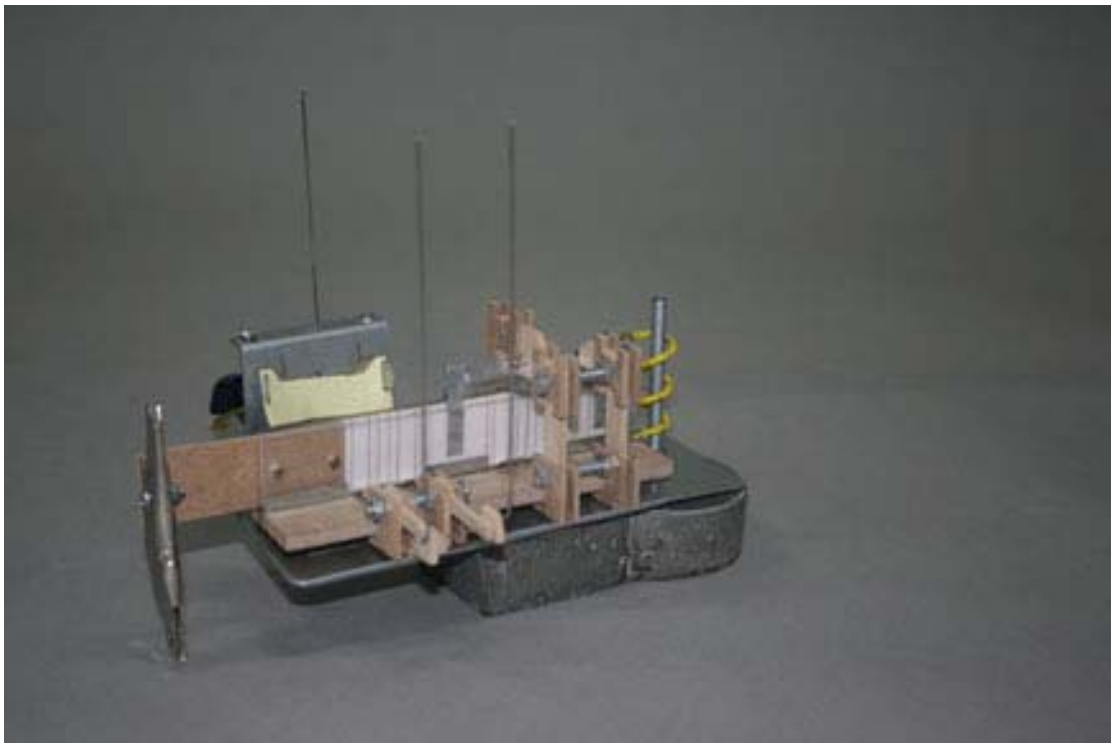
There was an attempt to maintain the graphic component of 131111 in direct association with the studio agenda. This was an attempt to blur the line that segregates

the distinction. There was a desire to leave the students with a strong impression that drawing for a designer is a tool for thinking and consequently understanding. Contrary to what many non-designers think, drawing is more than simply representation.

There was very little new information introduced in the final project of the semester. In the spirit of creating a comprehensive experience, we relied on the student's ability to draw on previous short assignments given in the first 11 weeks of the semester. Contour drawings, both blind and semi-blind were introduced to negotiate line quality. Gesture drawings were used to get a sense of the whole. Hybrid contour gestures were introduced to combine the whole with the details that each project was comprised. A series of spatial explorations were introduced as a "Kit of Parts" project. Orthographic projection and axonometrics were explored concurrently as a means of understanding the spatial explorations that the students developed. Through all of these design exercises, systems of order, hierarchy and other formal and compositional relationships were introduced, explored and reinforced.

In addition to these design exercises, concrete casting and form-making workshops were introduced at key moments. Watercolor demonstrations, chipboard cutting and an introduction to the basic tools of the woodshop such as band saws, scroll saws, jig saws, sanders, drills, chop saws and other hand tools all helped prepare the students for what was in store for the final exercise of the semester.

The *Micro-Hybrid*



The intention of the final project was to provide an opportunity to integrate the diverse skills required for an informed design process in the beginning of the design curriculum. The project was a response to the necessity to utilize and connect a variety of design skills in a single design project. This was accomplished by creating a

pre-comprehensive design project called the *Micro-Hybrid*. This project allowed a broad range of skills previously tested in the beginning of the semester to be synthesized into a final four-week project. Through the introduction of systems of organization, compositional studies, various forms of representational drawing, 3D modeling using planer materials and concrete and an iterative process, students were able to grasp the complexities of the project quickly and begin the process of exploration. By giving students the opportunity to apply what they have very recently learned, they seem more apt to remember and internalize the material and process of design development. The *Micro-Hybrid* project negotiates and explores a context of space, form, material and narrative through free play as described by Dewey.

The materiality in the process proved to be most valuable. The inclusion of an integrated physical exploration within the traditional design process allowed students to understand the material implications of their thoughtful design ideas. This physical connection has proven itself especially poignant in the context of the Middle East. The entire studio exposed themselves to the rigors of conventional modeling techniques and materials ranging from paper products and stationary supplies to more substantial supplies, tools and applications found in the workshop including wood fabrication and concrete casting.

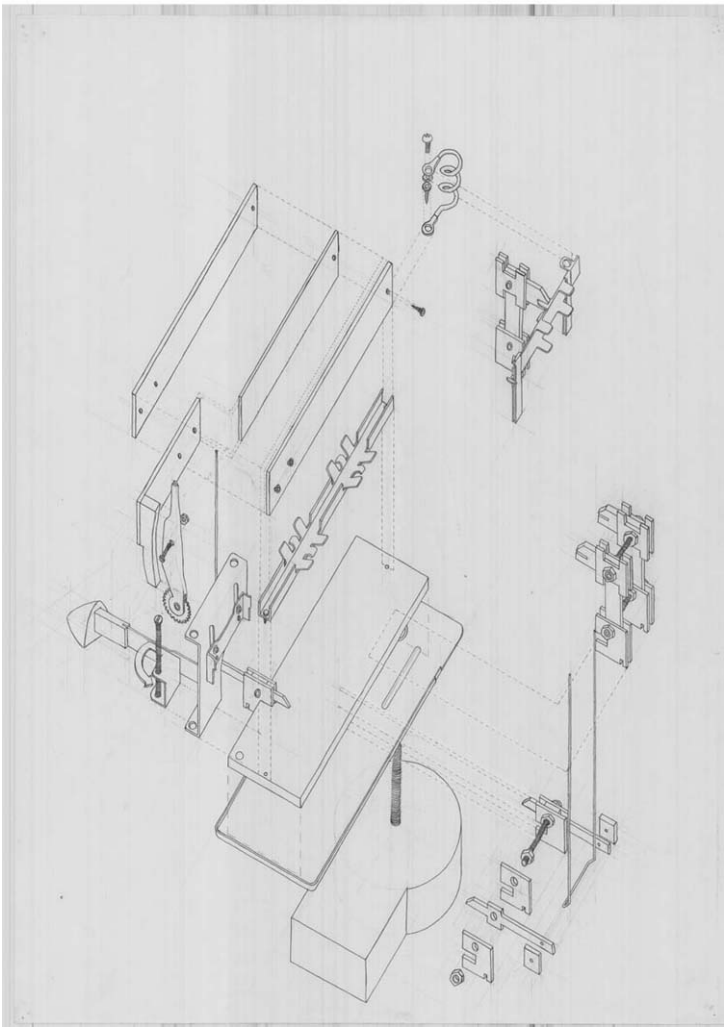
The inherent complexity of the project insured that the student utilized a broad range of media and exploration in the development of ideas. Every facet of the exploration was introduced, demonstrated and mandated as an integral part of the design process. Working within the constraints of size limitations, a prescribed pallet of materials and parts appropriated from a found object, students were presented select opportunities to integrate what they have learned in prior design projects. The *Micro-Hybrid* project became a means to analyze, explore, integrate and produce a product that acts as a veritable microcosm of a true design experience independent of discipline.

Constraints

Constraints help beginning design students because most have little or no prior experience with art and design. They have nothing to draw on to inspire their design ideas. The *Micro-Hybrid* integrated materials and processes that had been explored at least once prior in the semester. This gave students some degree of familiarity to what was being asked of them. The primary ingredients for the *Micro-Hybrid* design exploration were the complexities of the found object, linear elements, planer elements, transparent and translucent elements and the idea of solid and void.

The primary constraint was not necessarily the materials, but the scale of the construction. Students were asked to produce a design in which particular importance was given to the degree of precision required to design and fabricate the object. Students were encouraged to thoroughly explore and execute material connections. The scale of the composition dictated the physical limits of the material solutions and the size of the investigations had specific material limitations. The micro-scale focused attention of details, connections and craft.

Drawing

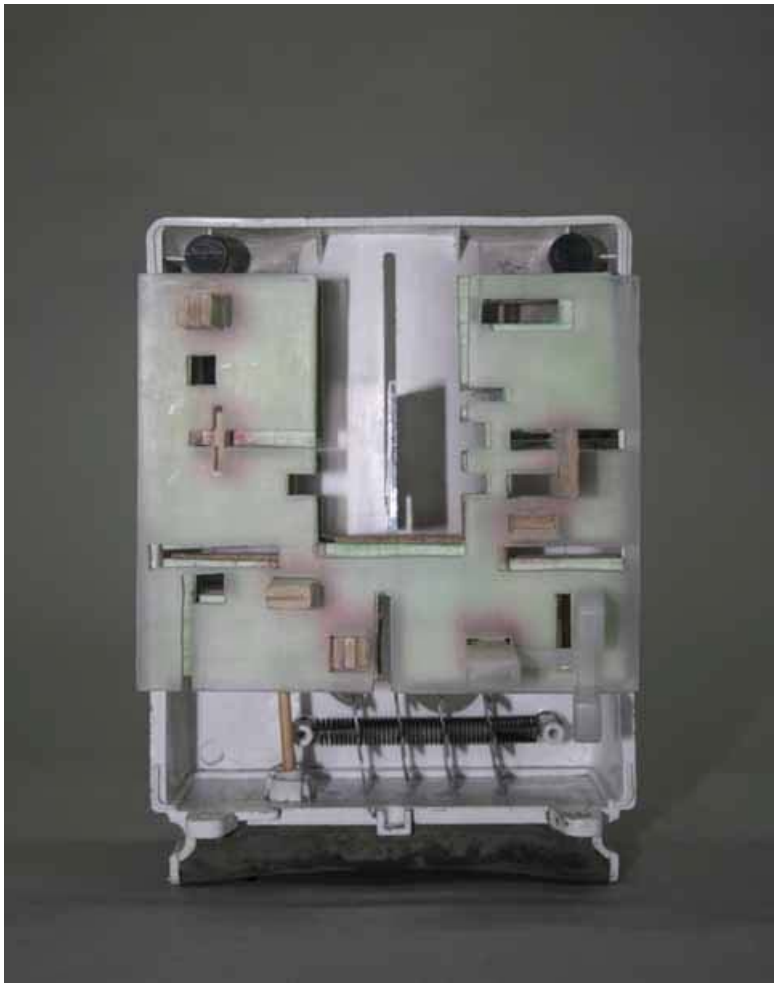


This studio confronted typical beginning design education that separates technical skills such as drawing from the design studio. In these compartmentalized curriculums, students learn the various drawing conventions but often fail to use them to inform the design process. This knowledge without application creates confusion amongst students when they are required to use these skills as designers. Drawing was used to inform the design process from the very beginning. By demonstrating how drawing could be used to reveal conditions and relationships that are normally hidden or obscured, students soon found that drawing could be used to explore variation, analyze connections and test spatial relationships. Key in this drawing process was the introduction and use of regulating lines. The regulating lines of the drawing allowed students to physically connect what was spatially separate. The use of regulating lines also allowed the students to integrate the variety of forms and materials into a combined and organized whole.

Free Play

Using free play to inform a student's design process goes a long way in taking pressure off the start of a project. Students have a tendency to not want to begin an investigation until they know where they are going or what the outcome is going to be. This limits the possible outcomes and often produces designs that are excessively

preconceived. Free play, as it was incorporated into the *Micro-Hybrid*, provided an assortment of elements that could be combined in many different ways, so free plan allowed each design decision to inform the next. Students can spend their time looking for opportunities, recognizing possibilities and testing multiple variations. It became an exercise in which students followed a path of thought without knowing where it would lead. This was a giant leap of faith for our students here in Sharjah who were more comfortable getting direction and permission to pursue an idea from their professors than striking out on their own. We had to continually remind them that it was better to ask for forgiveness than permission.



Conclusion

The project outcomes achieved a number of results that we could not have envisioned prior to the beginning of the semester. Underlying much of the studio pedagogy was a desire to demystify the design process. It was important that students in the very beginning of their design education understand that a design idea was not a light bulb turned on by sitting around thinking about a design solution. Design solutions come from an active engagement in directed play. Much of the role of the design critic is to nurture and encourage students and make sure they are comfortable in making their own design decisions. Empowering students to make design decisions means that you must be careful criticizing the work. If you are overly critical you run the risk of creating students that will be afraid of making decisions without asking for your opinion or advise and when there is not enough criticism, the quality and complexity of the design suffers.

The Micro-Hybrid was a good test for the final project because it provided a physical record of an enormous amount of work that surpassed everyone's expectations. It was an opportunity to see the extent to which students were able to apply newly acquired design skills to a new context as it provided an opportunity for students to reflect on their previous work and apply what they learned to a new condition. Lastly, the Micro-Hybrid project proved itself a worthy experience that successfully punctuated the foundation of design education for the benefit of subsequent semesters.

Bibliography

Dewey, John; *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process,* foreword by Maxine Greene (Boston: Houghton Mifflin, 1998).